Gibson then proceeds to weigh the arguments advanced in favor of the two theories. He supports Gairdner's theory of the causation of the presystolic murmur. He says that the one simple fact that the presystolic murmur may begin as a diastolic murmur with the second sound, and be continued, without appreciable alteration in its character, up to the first sound, to his mind entirely negatives the regurgitant theory of the presystolic portion, which would require an absolute revolution in our knowledge of the cardiac mechanism.

[With this view I believe a majority of teachers on this side of the water agree.—W. O.]

The Pituitary Gland as a Factor in Acromegaly and Giantism.—WOODS HUTCHINSON has written a series of very interesting articles on the above subject. The early papers were published in 1898, and the more recent ones have just appeared.

Hutchinson points out in his first paper that previous to 1890 the pituitary gland was almost unanimously regarded as a purely vestigial structure and possessing no present value to the organism. In that year interest in its function, if it possessed any, was aroused by the announcement of Souza-Leite, that the gland was markedly enlarged in most cases of the disease known as acromegaly, which was first described by Marie in 1886.

As a result of the analysis of the literature on the subject, and in particular of nineteen cases of acromegaly in which microscopic study of the enlarged pituitary gland was made, Hutchinson draws the following conclusions:

1. That the pituitary body is still functional.
2. That disturbances of its metabolism are the principal factors in both acromegaly and giantism, the difference between the results being simply due to the stage of individual development at which the disturbance of its function begins.
3. That the nature of the overgrowth in both these diseases is primarily on the order of a pure functional hypertrophy; later, however, losing some of the definiteness of its impulse, and either producing immature tissue of a mixed type or resulting in simple hemorrhagic exudation, with either cyst formation or complete breaking down of the tissue mass.
4. That it seems probable, although upon this head the evidence is still uncertain, that some part is played by this body in "dwarfism," rickets, and the dwarf forms of cretinism.
5. That a reflex disturbance of its function may possibly underlie the distrophy accompanying pharyngeal adenoids.
6. That it would appear to be a sort of "growth centre" or proportion regulator of the entire appendicular skeleton.—*New York Medical Journal*, vol. lxvii., 1898, pp. 341, 450, and vol. lxxii., 1900, July 21 and 28.

Tracheal Tugging in Mediastinal Tumor.—AUERBACH (*Deutsche medicinische Wochenschrift*, 1900, No. 8) reports two cases illustrating the necessity of using Oliver's sign in the diagnosis of suspected aortic aneurism. In one case there was a primary cancer of the stomach with metastases in the abdomen and the supraclavicular and bronchial glands. Over the upper part of the thorax there was a diffuse, weak systolic shock, but no circumscribed pulsation. The manubrium and body of the sternum showed an area of dulness continuous with the slightly displaced heart dulness. Oliver's symptom of systolic downward tugging of the larynx was distinctly present while the breath was held. On pressing the larynx toward the left a distinct pulsation from left to right could be observed, but on pressing the cartilage to the right the lateral pulsation described by Cardarelli could not be seen. Although Oliver's symptom was very distinct, there were no other points in the history or physical condition to confirm it. It was, therefore, ascribed to a mediastinal tumor, as A. Frankel suggested might occur. The autopsy confirmed this. The mediastinum was filled with a mass of cancer nodules adherent to the vertebra and surrounding the aorta. The trachea was also surrounded, and the new growth extended into the peribronchial tissue, especially around the left bronchus, where it formed a mass three to four centimetres thick between the arch of the aorta and that bronchus, and closely adherent to both. The peculiar relation thus brought about between the aorta and the left bronchus had the same effect as an aneurism on the under surface of the aorta, with the exception that in the present case the systolic dilatation of the aorta was communicated to the bronchus, and in that way caused the tugging of the trachea and larynx.

In the second case a man, aged forty-eight years, formerly the subject of rheumatism and nephritis and dyspnœic for some time, was suddenly attacked with cough and hæmoptysis. Similar attacks occurred again at intervals, with loss of weight. There was dulness over the left side of the chest, with distention in that part. The heart was slightly enlarged, with marked epigastric pulsation and systolic shock in the heart region. Oliver's sign was distinct. The sputum was watery and contained blood and mucus. Many examinations for tumor cells were negative. The diagnosis lay between mediastinal tumor and aneurism of the arch of the aorta, leaning to the latter on account of the uncertain differential diagnostic features and the positive tracheal tugging. Autopsy, however, showed that there was a bronchial carcinoma of the left lung, with metastases to the bronchial lymph-glands, extensive indurative pneumonia of the left upper lobe, and chronic endocarditis of the aortic and mitral valves. Between the bronchus and the aorta were several moderately enlarged lymph-glands, forming a mass the size of a walnut, attached both to the under surface of the arch and the bronchus. Although such conditions occur but rarely, they lessen the diagnostic value of Oliver's sign and make it all the more necessary to examine all the other signs carefully as well as to lay due importance on the history.

Symptoms of Brain Pressure in Typhoid Fever.—SALOMON (*Berliner klinische Wochenschrift*, 1900, No. 6) has been struck by observing in a number of cases of typhoid fever that the optic nerves gave an ophthalmoscopic picture resembling that seen in cases of intracranial pressure. There was not a distinct papillitis, but the papilla looked more or less veiled, its capillaries were injected, its edges indistinct—though often only on the temporal side—its veins somewhat dilated and tortuous. He therefore practised lumbar puncture in four cases and found, in fact, that the spinal fluid was under high pressure in all of them, viz., from 180 to 250 millimetres of water.